



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,507	08/31/2001	Shigekazu Ohtomo	520.40591X00	8177
20457	7590	12/19/2005	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			CHEN, TIANJIE	
1300 NORTH SEVENTEENTH STREET			ART UNIT	
SUITE 1800			PAPER NUMBER	
ARLINGTON, VA 22209-3873			2656	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,507

Applicant(s)

OHTOMO ET AL.

Examiner

Tianjie Chen

Art Unit

2656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 38-41, 43-47, 49-53 and 55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-41, 43-47, 49-53, 55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***Non-Final Rejection (RCE)***

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/12/2005 has been entered. Claims 38-41, 43-47, 49-53, and 55 are pending.

#### ***Claim Rejections - 35 USC § 102***

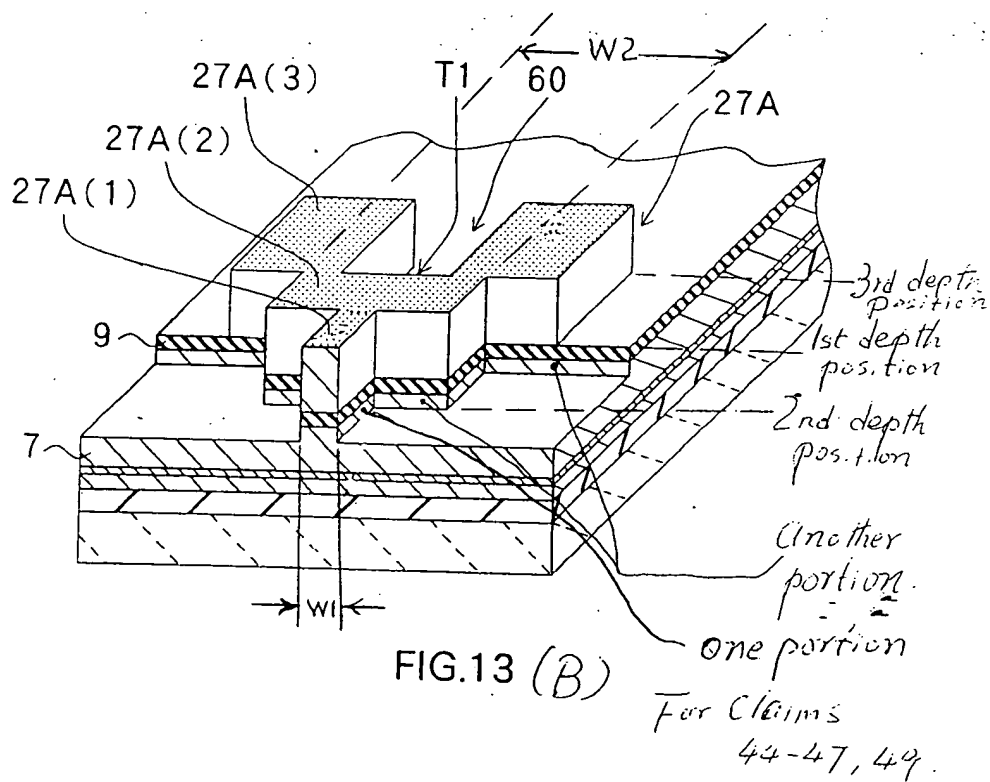
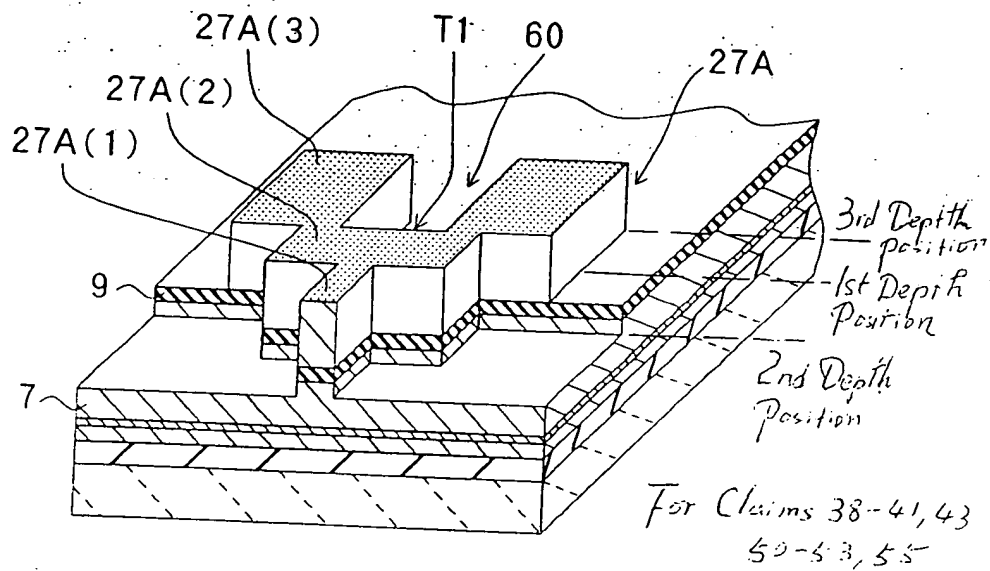
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 38-41, 43-47, 49-53, and 55 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki (US 6,624,971).

Claims 38, 44, and 50, Sasaki shows a thin film head in Fig. 13, which is modification of the thin film head in Fig. 1 (Column 17, line 60) having a reading part 5 (Fig. 1; column 10, line 58) and a recording part including: an upper magnetic pole 27 (Figs. 13) having a first width at an air bearing surface and a second width which is larger than the first width at a first depth position from the air bearing surface;



Art Unit: 2656

a lower magnetic pole having a lower magnetic main layer 7 (Fig. 13), a lower magnetic pole front end portion on the lower magnetic main layer, and a projection step portion on the lower magnetic pole front end portion; and a non-magnetic insulating layer on the lower magnetic main layer, which is formed at an opposite side to an air bearing surface of the projection step portion; wherein the projection step portion includes one portion which faces the upper magnetic pole and another portion which is formed so as to extend from a second depth position from the air bearing surface to a third depth position from the air bearing surface and having a part which does not face the tip portion of the magnetic pole; and wherein a distance from the air bearing surface to a the second depth position is shorter than a distance from the air bearing surface to the first depth position.

With regard to claim 44, Sasaki further shows in Fig. 13, wherein the widths of the upper magnetic pole in the track width direction are equal from the air bearing surface to the second depth position the track centerline of the projection step portion to a position on the starting position line.

With regard to claim 50, Sasaki further shows a gap layer 9 (Fig. 13) disposed between the upper magnetic pole and the projection step portion.

Claims 39, 45, and 51; Sasaki further shows in Fig. 13 that the another portion of the projection step portion is formed at both sides of a track center line of the projection step portion.

Claims 40, 46, and 52; Sasaki further shows in Fig. 13 that the width of the projection step portion in the track width direction at the air bearing surface is substantially equal to a width in the track width direction of the upper magnetic pole at the air bearing surface.

Art Unit: 2656

Claims 41, and 53; Sasaki further shows in Fig. 13(A) that a distance from a track center line of the projection step portion to an edge of the another portion in track width direction at the second depth position from the air bearing surface is greater than a distance from a track center line of the upper magnetic pole to an edge of the upper magnetic pole in the track width direction at the second depth position from the air bearing surface.

Claim 47, Sasaki further shows in Fig. 13(B) that a distance from a track center line of the projection step portion to an edge of the another portion in track width direction at the second depth position from the air bearing surface is  $W2/2$ , which is greater than a distance from a track center line of the upper magnetic pole to an edge of the upper magnetic pole in the track width direction at the second depth position from the air bearing surface, which is  $W1/2$ .

Claims 43, 49, and 55, Sasaki further shows in Fig. 13 that another portion of the projection step portion has rectangular contours.

### ***Response to Arguments***

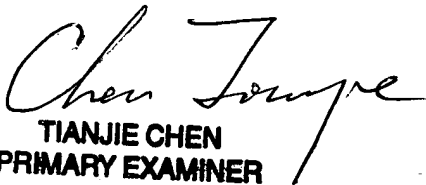
2. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection for the new claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2656

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**TIANJIE CHEN**  
**PRIMARY EXAMINER**